

Figure 2. A section of the upper end of the thigh bone (femur) demonstrating the strut-like “trabeculae” in the cancellous bone tissue of the femoral head and neck of the femur and the very dense compact bone in the upper end of the femoral shaft. [Reprinted from Glimcher (1998) with permission from Elsevier.]

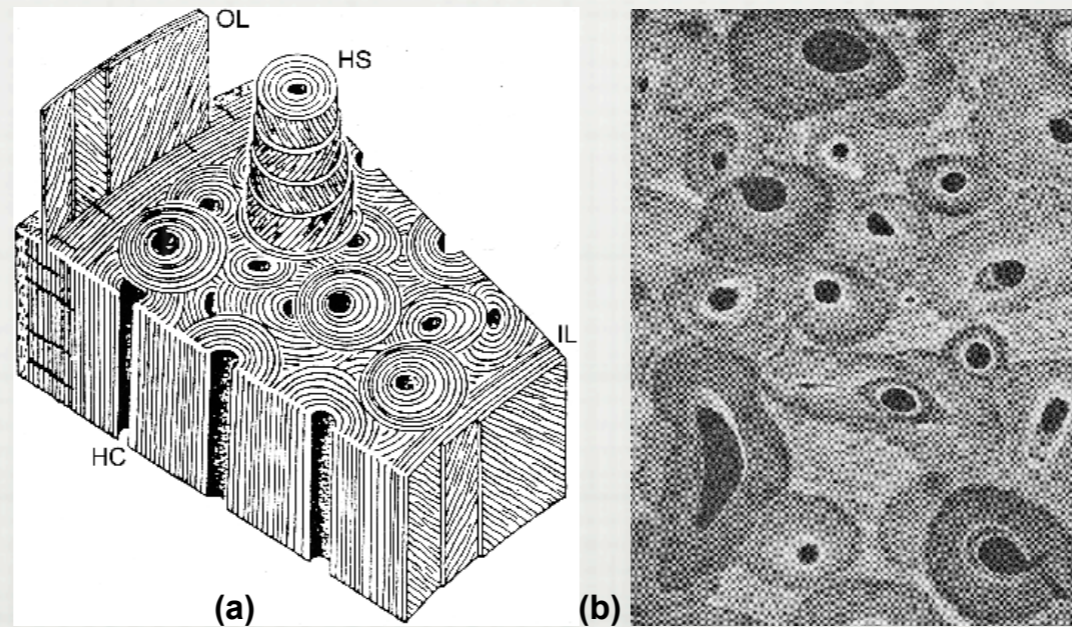


Figure 3. Compact cortical bone structure, (a) schematic drawing of a block of compact cortical bone tissue and substance, and its highly ordered organization. OL = outer circumferential layer; HS alternate geometric orientation of the collagen fibers and the solid, Ca-Pi mineral phase in adjacent lamellae of a single osteon. HC is the cortical corner of an osteon. IL the inner circumferential and OL outer circumferential layers of the compact bone substance of the diaphysis (shaft) of a long bone; (b) A microradiogram of a thin cross section of normal cortical bone. Note the variation in X-ray density (indicating inorganic crystal concentration) within any one Haversian system, as well as within the section as a whole. The extent of the X-ray densities correlate with the extent of mineralization. [Reproduced from Glimcher (1959). Copyright American Physical Society. See Figure 6d caption for copyright restrictions. Figure 3b from original, courtesy A. Engstrom, Karolinska Institutet, Stockholm, Sweden.]